

WHAT IS CLAIMED IS:

SUB A7

1. In a finishing system having at least one finishing device controlled separately from production devices that produce workpieces of a job wherein such finishing device has capability and constraint attributes, a method for a virtual finishing job ticket database, comprising:

- a) storing in the database a list of capability and constraint attributes for each available finishing device;
- b) receiving finishing job description information, including descriptions of job segments of the job; and
- c) storing the finishing job description information in the database.

2. The method of **Claim 1**, wherein the step of receiving job description information comprises receiving a description of finishing operations for a job comprising printed sheet workpieces.

3. The method of **Claim 1**, wherein the step of receiving finishing job description information comprises receiving such information from a production monitor controller.

4. The method of **Claim 1**, wherein the step of receiving comprises receiving reference pointers to locations where at some specific job description information is stored.

5. The method of **Claim 1**, further comprising arranging finishing job description information in a hierarchical manner.

6. The method of **Claim 5**, wherein the step of arranging further comprises arranging in a hierarchical tree structure.

7. The method of **Claim 5**, wherein the step of arranging in a hierarchical manner further comprises including, within at least one node at each level within the hierarchy of nodes, reference pointers to at least one node at a different level in the hierarchy such that all nodes of a job are referenced by at least one other node within the hierarchical arrangement of nodes.

8. The method of **Claim 5**, wherein the step of arranging further comprises arranging a top level node comprising job identification data.

9. The method of **Claim 8**, wherein the step of arranging a top level node further comprises including within the top level node reference pointers to at least one node at a hierarchical level below the top level.

10. The method of **Claim 5**, further comprising including at least one node within a hierarchy of nodes in which one of a pre-designated list of document forms is identified as applying to a document to be finished during the finishing job.

11. The method of **Claim 10**, further comprising using a reference pointer within at least one node to a list of attributes of the identified document form, which list is stored outside of the node itself.

12. The method of **Claim 3**, wherein the step of receiving comprises receiving from the production monitor controller job model information comprising information associated with possible threads for production of the finishing job.

13. The method of **Claim 12**, wherein the step of receiving job model information further comprises receiving build sequence information for production of the finishing job.

14. The method of **Claim 12**, wherein the step of receiving build sequence information includes receiving information for programming operation of at least one finishing device to be used during the finishing job.

15. The method of **Claim 5**, wherein the step of storing further comprises storing information for different job segments in different nodes within a hierarchy of nodes.

16. The method of **Claim 5**, wherein the step of storing further comprises storing information in a plurality of nodes at the same level within a hierarchy of nodes.

17. The method of **Claim 1**, wherein the step of receiving further comprises receiving information associated with job segments produced by different production equipment and wherein the step of storing further comprises storing information describing such different job segments in different nodes of the virtual finishing job ticket database.

18. The method of **Claim 17**, further comprising creating an information node within the virtual finishing job ticket database wherein descriptive information of a job segment is stored, such job segment comprising a combination of a plurality of job segments produced by different production equipment.

19. The method of **Claim 1**, wherein the step of receiving further comprises receiving the finishing job description information from a production monitor controller.

20. The method of **Claim 1**, further comprising providing access to the stored finishing job description information to a finishing module controller.

21. The method of **Claim 1**, further comprising associating the stored finishing job description information regarding at least one job segment with a job segment identifier code such that such stored information can be accessed through use of the job segment identifier code.

22. The method of **Claim 1**, wherein the step of receiving further comprises receiving a digital copy of a virtual finishing job ticket.

23. The method of **Claim 1**, wherein the step of storing capability and constraint attributes further comprises storing capability and constraint attributes for all finishing devices usable for the finishing job.

24. The method of **Claim 23**, wherein the availability of a finishing device is one of the attributes stored in the virtual finishing job ticket database.

25. The method of **Claim 1**, wherein the step of receiving comprises receiving data for controlling at least one finishing device.

26. The method of **Claim 1**, wherein the step of receiving comprises receiving integrity data used after performance of the finishing device in order to confirm that the job was finished in accordance with the job description data.

27. In a finishing system having at least one finishing device with capability and constraint attributes and having a production monitor controller that determines job segments of the job based upon the capability and constraint attributes and that determines an hierarchical description of the job and its components, a method for a database system, comprising:

- a) storing capability and constraint attributes in the database;
- b) communicating the capability and constraint attributes to the production monitor controller;
- c) creating a job model location within the database for storing a description of the job and its components, including job segments;
- d) receiving from the production monitor controller information that describes the job and its components, including descriptions of job segments of the job; and
- e) storing the description of the job and its components, including job segments, in the job model location within the database.

28. In a finishing system having at least one finishing device and a production monitor controller, a virtual finishing job ticket database, comprising:

- a) job construction data;
- b) control data for instructing performance of at least one finishing device; and
- c) integrity data used after performance of the finishing device in order to confirm that the job was finished in accordance with the job construction data.

29. The virtual finishing job ticket database of **Claim 28**, wherein the job construction data, control data, and integrity data are stored in hierarchically arranged of nodes of information.

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